

FORTHCOMING PUBLICATIONS (A)

January & March 2004, Vol. 78A, Nos. 1&2

Proceedings of the Symposium on National Seminar on Science & Technology of Nanomaterials (Nanomaterials-2003) held at MNS Auditorium, Central Glass & Ceramic Research Institute, Jadavpur, Kolkata-700 032, India during March 6-7, 2003

Invited Talks

Nanometer-sized dielectric oxides : synthesis and properties

ASHOK K GANGULI, PIKA JHA, TOKEER AHMAD AND PADAM R ARYA

Porous silicon : a natural nano structure for sensing and photonic applications

H SAHA, S M HOSSAIN AND J DAS

Characterization of nanoparticle systems by Mossbauer and positron annihilation spectroscopic methods

SANJUKTA GHOSH, M CHAKRABARTI AND D BANERJEE (DECEASED)

Novel gate dielectrics for nanoscale semiconductor devices

D N BOSE, S PAL, S K RAY AND B R CHAKRABORTY

Development of carbon nanomaterials through chemical routes

L M MANOCHA, JIGNESH VALAND, S MANOCHA AND ASHISH WARRIER

Preparation of fine particles through aqueous processing route

R P DAS AND S ANAND

Nanoscale magnetic multilayers : density functional calculations

G P DAS

Contributed Papers

Up converted nanoparticles for photonic applications

AMITAVA PATRA

Comparative atomic force and scanning electron microscopic studies disclosing nanocrystallinity in cordierite glass-ceramics : examples of surface modification

BASUDEB KARMAKAR, GERHARD HEIDE AND GUNTHER HEINZ FRISCHAT

The magnetic properties of $\text{NiFe}_2\text{O}_4\text{-SiO}_2$ nanocomposite

S CHAKRAVERTY, K MANDAL, S CHATTERJEE AND S KUMAR

Conventional ceramic route for the production of nanocrystalline ferrites

T K KUNDU AND D CHAKRAVORTY

Oxidation mechanism of Si nanoparticles grown by plasma–CVD

K NANDI, S CHATTOPADHYAY, S GHOSH, D DAS AND D JANA

To scale or not to scale : self-capacitance, "Hubbard U" and quantum dot size ?

VIJAY A SINGH, R K PANDEY AND MANOJ K HARBOLA

Preparation of barium ferrite nanoparticles from a non-aqueous precursor

P DEB, S GHOSH, A BASUMALLICK AND N R BANDYOPADHYAY

Magnetic properties of doped Mn_{12} -ac : a novel nanomagnet

SAURAV GIRI, ASIM BHAUMIK AND HIROYUKI NAKAMURA

Mossbauer spectroscopy : an excellent technique to characterize magnetic materials of nanometer dimension

DIPANKAR DAS

Synthesis of nano-quasicrystalline decagonal phase

T P YADAV, N K MUKHOPADHYAY AND O N SRIVASTAVA

Patterning sub-micron scale channel structures on glass by chemical etching

DEVASISH CHOWDHURY, ANUMITA PAUL AND ARUN CHATTOPADHYAY

Formation and alignment of silicon and germanium nanoparticles on DNA template

DINESH PRATAP SINGH, A K SINGH AND O N SRIVASTAVA

Phase transition of magnetite by mechanical alloying

S DUTTA, S K MANIK, M PAL, S K PRADHAN, P BRAHMA AND D CHAKRAVORTY

A novel method for the determination of grain size distribution and microstrain in nanocrystalline materials from single X-ray diffraction peak

P CHATTERJEE, A K DEB AND S P SEN GUPTA

Novel aspects of confined organic systems

A DATTA AND S CHATTOPADHYAY

Formation of gold nanoparticles within surface-functionalized ordered mesoporous molecular sieves

ANIRBAN GHOSH, CHITTA RANJAN PATRA, MURALI SASTRY AND RAJIV KUMAR

Synthesis of nanostructured TiO_2 by sol-gel technique for PEC application and its advantages

P R MISHRA, A K SINGH AND O N SRIVASTAVA

On the formation and characterization of silver nanoparticles, nanothreads and nanorods by electrical arc evaporation

RAM MANOHAR YADAV, A K SINGH AND O N SRIVASTAVA

Magnetic and current density studies on nanostructured vanadium nitride material

RAGHUMANI SINGH NINGTHOUJAM AND N S GAJBHIYE

Physical characterization of organic inorganic hybrid charge transfer complexes

TAPAS PAL MAJUMDER AND KEIICHI IKEGAMI

Synthesis of BaTiO₃ nanoparticles through a novel chemical route with polymer precursor

A JANA, T K MANDAL, S RAM AND T K KUNDU

Fungus mediated synthesis of silver nanoparticles : a novel biological approach

SATYAJYOTI SENAPATI, DEENDAYAL MANDAL, ABSAR AHMAD,
MOHAMMAD I KHAN, MURALI SASTRY AND RAJIV KUMAR

Synthesis and characterization of nano-sized ceria powders through citrate-nitrate auto-ignition

P SUJATHA DEVI, SANTANU BASU AND H S MAITI

A study on swift heavy ion irradiated nano-crystalline Li-Mg ferrite thin film

SANJUKTA GHOSH AND D BANERJEE

Development of multielement nanostructured ceramics through solution route

SATISH M MANOCHA

Studies on Sm (Co_{0.9x}Fe_xCu_{0.1})_{4.8} nano composite magnetic powder

K SURESH, R GOPALAN, A K SINGH, K MURALEEDHARAN,
D V SRIDHARA RAO AND V CHANDRASEKARAN

Synthesis and characterization of nanocrystalline zinc sulphide by wet chemical route

R MAITY, S KUNDOO, P K GHOSH AND K K CHATTOPADHYAY

Preparation of Sb doped SnO₂ transparent conducting oxide coating by dip coating technique

KIRAN JAIN, VIPIN KUMAR, RASHMI, K N SOOD AND S T LAKSHMIKUMAR

Positron annihilation lifetime measurements for C⁵⁵⁺ ion irradiated makrofol – N polycarbonate

RAJESH KUMAR, B K NATH, D DAS AND RAJENDRA PRASAD

¹⁹⁷Au ion irradiated modification in Cr – 39 by positron annihilation

RAJESH KUMAR, A K MAHUR, K K DWIVEDI, D DAS AND RAJENDRA PRASAD

Nanostructured Mn-doped and undoped CuO thin films – PEC studies

SAHAB DASS, YATENDRA S CHAUDHARY, MEGHA AGRAWAL, SAROJ,
ANUBHUTI SHRIVASTAV, ROHIT SHRIVASTAV AND VIBHA R SATSANGI

Tetragonal crystal structure in extended Zr⁴⁺-rich regime in small PbZr_{0.7}Ti_{0.3}O₃ of nanoparticles

T K MANDAL, S RAM AND T K KUNDU

Electron-phonon interaction assisted photoluminescence in Eu₂O₃ nanocrystals

P MOHANTY, S RAM, M L N GOSWAMI AND H N ACHARYA

Influence of polymer matrix and magnetic field on the optical and electrical properties of fine particles of nickel ferrite

S DUTTA, P BRAHMA AND D CHAKRAVORTY

Structural and magnetic properties of γ -Fe₂O₃ nanoparticles coated on silica spheres

S CHAKRABARTI, D GANGULI, S K MANDAL AND S CHAUDHURI

Growth of nanostructured ZnO by simple calcination method

R GHOSH AND D BASAK

Preparation of nano α -silicon carbide crystalline particles by attrition grinding

M S DATTA, A K BANDYOPADHYAY AND B CHAUDHURI

Investigation on porous silicon/CdTe system

KIRAN JAIN, P K SINGH AND S T LAXMIKUMAR

Thermal decomposition study of nanocrystalline Ni₁N

R S NINGTHOUJAM AND N S GAJBHIYE

Finite size effect on the magnetic properties of ferrite nano-composite

S CHAKRAVERTY, K MANDAL, S CHATTERJEE AND S KUMAR